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[Folding-Unfolding Transitions in Single Titin Molecules Characterized with Laser Tweezers - all 8 versions »](#)

MSZ Kellermayer, SB Smith, HL Granzier, C ... - Science, 1997 - sciencemag.org  
... Use of a coaxial dual-beam **optical trap** permitted high ... was trapped in force-measuring laser **tweezers** (11) (Fig ... and determine their length, we **segregated** the data ...

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MP MacDonald, GC Spalding, K Dholakia - Nature, 2003 - palgrave-journals.com  
... For weakly **segregated** species, the analyte can be ... a single-beam gradient force **optical trap** for dielectric ... colloidal transport in an array of **optical tweezers**. ...

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PJ Pease, O Levy, GJ Cost, J Gore, JL Ptacin, D ... - Science, 2005 - sciencemag.org  
... In our assay with **optical tweezers**, the direction of view ... DNA, thus displacing the bead in the **optical trap**. ... did not cancel. They are **segregated** into separate ...

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A Roux, D Cuvelier, P Nassoy, J Prost, P Bassereau ... - The EMBO Journal, 2005 - nature.com  
... The vesicle is **segregated** after 5 s of constant ... was achieved by combining an **optical tweezers** setup with ... 200; Zeiss), to construct a single-beam **optical trap**. ...

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[Mapping the sensitivity of T cells with an optical trap: Polarity and minimal number of receptors ... - all 7 versions »](#)

X Wei, BJ Tromberg, MD Cahalan - Proceedings of the National Academy of Sciences, 1999 - National Acad Sciences

... then manipulated with an **optical trap** and placed ... membrane proteins clustered into **segregated** three-dimensional ... We have developed an **optical tweezer**-based single ...

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MN Liang, SP Smith, SJ Metallo, IS Choi, M ... - Proceedings of the National Academy of Sciences, 2000 - National Acad Sciences

... the mixed monolayers do not phase-**segregate** into macroscopic ... The focal region of the **optical trap** again was placed ... of the bacterium, and the **tweezers** were used ...

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[Light Streak Tracking of Optically Trapped Thin Microdisks - all 4 versions »](#)

Z Cheng, PM Chaikin, TG Mason - Physical Review Letters, 2002 - APS

... are repeatedly used to **segregate** the disks ... of a birefringent colloidal disk in a LP **optical trap**. ... for positioning and orienting microdisks using laser **tweezers**. ...

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A method and apparatus for control of **optical trap** arrays and formation of ... **remove**, or **add** particles at various **optical trap** sites or allow various ...

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the **optical** tweezers and microscopy (Schek and Hunt,2005) .Fabrication on a #1. coverglass maintains high quality imaging and **trapping** while the low profile ...

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Inexpensive **optical** tweezers for undergraduate laboratories ...

Single beam gradient force **optical traps**, or tweezers, are a powerful tool ... and the force required to **remove** the sphere from the **trap** is significantly ...

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[PDF] **Appendix 2: Detailed Protocols**

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Fibronectin substrates for **optical** tweezers experiments ... Carefully **remove** stirbar from acid solution and **add** wafer basket. g. Allow to soak for 1 hr ...

[etd.caltech.edu/etd/available/etd-03312003-125746/unrestricted/Ewald\\_Appen2.pdf](http://etd.caltech.edu/etd/available/etd-03312003-125746/unrestricted/Ewald_Appen2.pdf) -

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Colloids and Surfaces B: Biointerfaces : Directed bacterial ...

We also illustrate an extension of the single **optical trap** by rapidly moving the single .... to the surface, the **trapping** laser was used to **remove** them. ...

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Photonic Force Microscope Based on **Optical** Tweezers and Two-Photon ...

0.5 M sodium chloride, to **remove** any adsorbent, and twice in. buffer. .... Observation of a single-beam gradient force **optical trap** for ...

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**Optical Trap** Produces Degenerate Fermi Gas

An all-**optical trap** (facing page) creates an arbitrary spin-state degenerate ... first to **remove** asymmetries that are created when the laser intensity is ...

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Unfolding individual nucleosomes by stretching single chromatin ...

The development of an applied tension-based mechanism to **remove** histones has .... 2d) was captured using the **optical trap**. Care was taken to ensure that ...

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the beam away from the fiber end, **independent** of the dis-. tance between the fiber end

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[A Ashkin](#)

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[S Chu](#)

[J BJORKHOLM](#)

[A Aspect](#)

[Observation of a single-beam gradient force \*\*optical\*\* trap for dielectric particles - all 14 versions »](#)

A ASHKIN, JM DZIEDZIC, JE BJORKHOLM, S CHU - Optics Letters, 1986 - OSA

... Letters Vol. 30 Iss. 2, (2005) Hollow spheres as individual **movable**

micromirrors in **optical tweezers** Optics Express Vol. 13 Iss. 3 ...

[Cited by 1007](#) - [Related Articles](#) - [Web Search](#)

[Optical trapping - all 9 versions »](#)

KC Neuman - Review of Scientific Instruments, 2004 - pubmedcentral.nih.gov

... A **movable optical** trap is typically used with either an imaging position detector, or a second low-power laser for laser-based detection (described above). ...

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[Design for fully steerable dual-trap \*\*optical tweezers\*\* - all 10 versions »](#)

E Fällman, O Axner - Appl. Opt, 1997 - OSA

... A detailed recipe for the construction of a **movable optical tweezers** trap that fulfills these requirements is given exemplified with an inverted microscope . ...

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[Optical trapping and manipulation of neutral particles using lasers - all 14 versions »](#)

A Ashkin - 1997 - National Acad Sciences

... manipulation was the demonstration of the **optical** levitation trap ... significant role

(5). In the levitation trap, as shown ... With a pair of **movable** beams, one can ...

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[History of \*\*optical trapping\*\* and manipulation of small-neutralparticle, atoms, and molecules - all 4 versions »](#)

A Ashkin - Selected Topics in Quantum Electronics, IEEE Journal of, 2000 - ieeexplore.ieee.org

... significant role [8]. In the levitation trap, as shown ... With a pair of **movable** beams

one can combine ... negative of the velocity to give strong **optical** damping ...

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[High-speed holographic \*\*optical tweezers\*\* using a ferroelectric liquid crystal microdisplay - all 9 versions »](#)

W Hossack, E Theofanidou, J Crain, K Heggarty, M ... - Optics Express, 2003 - opticsinfobase.org

... which generates the two **movable** traps. The **optical** trapping results are

shown in Fig. 5 and its associated linked movie. Fig. ...

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[Single-beam atom trap in a pyramidal and conical hollow mirror - all 7 versions »](#)

KI Lee, JA Kim, HR Noh, W Jhe - Optics Letters, 1996 - OSA

... 9592/96/151177-03\$10.00/0 © 1996 **Optical** Society of ... modulated at 2.91 GHz, is used

to trap 85 Rb ... a glass-cell vacuum chamber, and a **movable** anti-Helmholtz ...

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[Laser Cooling below the One-Photon Recoil Energy by Velocity-Selective Coherent Population Trapping - all 13 versions »](#)

A Aspect, E Arimondo, R Kaiser, N Vansteenkiste, C ... - Physical Review Letters, 1988 - APS

... state  $|IVNA(P)\rangle$  is not a trapping state, because ... beam and by using very high quality

**optical** components for ... S2 is the entrance slit of a **movable** He\* detector. ...

[Cited by 506](#) - [Related Articles](#) - [Web Search](#)

[Nanofabrication with holographic \*\*optical tweezers\*\* - all 7 versions »](#)

P Korda... - Review of Scientific Instruments, 2002 - griergroup.uchicago.edu

... OP \* imaging illumination imaging optics **movable** knife edge Dichroic L1

L2 DOE objective B OP **optical** trap(s) input beam B \* FIG. ...

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[Construction of multiple-beam \*\*optical\*\* traps withnanometer-resolution position sensing - all 5 versions »](#)

K Visscher, SP Gross, SM Block - Selected Topics in Quantum Electronics, IEEE Journal of, 1996 - ieeexplore.ieee.org

... through a second 1:1 telescope, again equipped with a **movable** first lens. ... of the objective; this insures that lens movements scan the **optical** trap with minimal ...

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